

IN THE CLAIMS

Please amend the claims as follows:

1 (Original). A surface plasmon sensor comprising:

a plurality of light supply means for irradiating a beam;

a plurality of surface plasmon resonance detection surfaces where the beam irradiated from the light supply means being incident to;

a plurality of light detection means for detecting the beam reflected at the surface plasmon resonance detection surface;

a plurality of reflective surfaces provided at respective optical paths from the light supply means to the light detection means, the reflective surfaces being arranged opposing to the respective surface plasmon resonance detection surfaces;

a wave formed multiwell formed with the surface plasmon resonance detection surfaces and the reflective surfaces; and

the light detection means positioned close to the light supply means.

2. (Original). The surface plasmon sensor according to claim 1, wherein the wave formed multiwell is formed by arranging each said surface plasmon resonance detection surfaces and each said reflective surface alternately to be perpendicular to one another.

3. (Previously Presented). The surface plasmon sensor according to claim 1, further comprising:

an optical unit unitarily including the light supply means and the light detection means; and

a detection chip including the multiwell, the detection chip detachably provided at the optical unit.

4. (Previously Presented). The surface plasmon sensor according to claim 3, wherein the detection chip includes an optical path and another portion charged with a material with a different refractive index from a material charged at the optical path.

5. (Original). The surface plasmon sensor according to claim 1, wherein the light detection means includes a single element photodiode;
the single element photodiode detects intensities of the beam with a predetermined reflective angle, so that the surface plasmon sensor detects the materials to be detected by analyzing the state of the intensity variation of the beam with a predetermined reflective angle.

6. (Original). The surface plasmon sensor according to claim 1, wherein the light detection means includes a linear photodiode array;
the linear photodiode array detects the beams with variable reflective angles reflected at the surface plasmon resonance detection surface to detect a change of a surface plasmon resonance curve.

7. (Previously Presented). The surface plasmon sensor according to claim 1, further comprising a polarizing filter for allowing only a polarized wave P to pass through.

8. (Previously Presented). The surface plasmon sensor according to claim 1, wherein the light supply means and the light detection means are positioned at an identical plane surface.

9. (Previously Presented). A surface plasmon resonance measurement device comprising:

- a surface plasmon sensor, the surface plasmon sensor comprising a plurality of light supply means for irradiating a beam;

- a plurality of surface plasmon resonance detection surfaces where the beam irradiated from the light supply means being incident to;

- a plurality of light detection means for detecting the beam reflected at the surface plasmon resonance detection surface;

- a plurality of reflective surfaces provided at respective optical paths from the light supply means to the light detection means, the reflective surfaces being arranged opposing to the respective surface plasmon resonance detection surfaces;

- a wave formed multiwell formed with the surface plasmon, resonance detection surfaces and the reflective surfaces;

- the light detection means positioned close to the light supply means;

- a means for calculating a concentration of targeted ingredient by processing an optical signal from the surface plasmon sensor; and

- a means for communicating with the outside.

10. (Original). The surface plasmon resonance measurement device according to claim 9, wherein the wave formed multiwell is formed by arranging each said surface plasmon resonance detection surfaces and each said reflective surface alternately to be

perpendicular to one another.

11. (Previously Presented). The surface plasmon resonance measurement device according to claim 9, wherein the surface plasmon sensor further comprises:

an optical unit unitarily including the light supply means and the light detection means; and

a detection chip including the multiwell, the detection chip detachably provided at the optical unit.

12. (Previously Presented). The surface plasmon resonance measurement device according to claim 9, wherein the detection chip includes an optical path and another portion charged with a material with a different refractive index from a material charged at the optical path.

13. (Original) The surface plasmon resonance measurement device according to claim 9, wherein the light detection means includes a single element photodiode;

the single element photodiode detects intensities of the beam with a predetermined reflective angle, so that the surface plasmon sensor detects the materials to be detected by analyzing the state of the intensity variation of the beam with a predetermined reflective angle.

14. (Previously Presented). The surface plasmon resonance measurement device according to claim 9, wherein

the light detection means includes a linear photodiode array; and

the linear photodiode array detects the beams with variable reflective angles reflected at the surface plasmon resonance detection surface to detect a change of a surface plasmon resonance curve.

15. (Original). The surface plasmon resonance measurement device according to claim 9, further comprising a polarizing filter for allowing only a polarized wave P to pass through.

16. (Previously Presented). A detection chip provided at the surface plasmon sensor according to claim 1, wherein the detection chip is configured to be detachable relative to an optical unit unitarily including the light supply means and the light detection means.

17. (Previously Presented). The detection chip according to claim 16 further comprising:

a light path charged with a first material; and
another portion charged with a second material having a different refractive index from the first material.

18 (Previously Presented). A detection chip provided at the surface plasmon resonance measurement device according to claim 9, wherein the detection chip is configured to be detachable relative to an optical unit unitarily including the light supply means and the light detection means.

19 (Previously Presented). The detection chip according to claim 18, further comprising:

Application No. 10/743,734

Reply to Office Action of October 20, 2006

a light path charged with a charged with a first material; and
another portion charged with a second material having a different refractive index
from the first material.

20 (Canceled).